



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/731,141

12/10/2003

Hisayoshi Usui

Q78772

4800

23373 7590 07/12/2006

SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

VO, NGUYEN THANH

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |  |                     |  |
|------------------------------|------------------------|--|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> |  | <b>Applicant(s)</b> |  |
|                              | 10/731,141             |  | USUI, HISAYOSHI     |  |
|                              | <b>Examiner</b>        |  | <b>Art Unit</b>     |  |
|                              | Nguyen T. Vo           |  | 2618                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 16 is objected to because of the following informalities: claim must be ended with a period "." at line 6. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, the recitation "said keyboard" at line 6 lacks clear antecedent basis.

As to claim 6, the recitation "said LCD controller" at line 5 lacks clear antecedent basis. In order to overcome this rejection, it is suggested that claim 6 should depend on claim 5 instead of claim 4.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 11 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimizu (6,894,982, cited by examiner).

As to claims 11, 14, Shimizu discloses a method for controlling a cellular phone having a CPU 21 (see figure 1) for controlling operation of the cellular phone and treating data in the cellular phone, said method comprising the step of detecting a receiving slot to activate a receiving frame signal (see column 2 line 61 to column 3 line 5); retaining an interrupt signal during a time interval when said receiving frame signal is active (see column 3 lines 20-40); delivering said interrupt signal to the CPU after said receiving frame signal is inactivated (see column 3 lines 20-40); and operating said CPU for processing corresponding to said interrupt signal (see column 3 lines 36-40; column 4 lines 17-46).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Turney (5,949,812, cited by examiner).

As to claims 12 and 15, Shimizu fails to disclose stopping and restarting operation of the CPU as claimed. Such teaching is known in the art as described by Turney (see column 4 lines 22-42). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to provide the above teaching of Turney to Shimizu, in order to save the battery life (as suggested by Turney).

8. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Yoshimoto (US 2002/0104890, cited by examiner).

As to claims 13 and 16, Shimizu fails to disclose halting and restarting data transfer as claimed. Such teaching is known in the art as described by Yoshimoto (see paragraphs [0055]-[0062]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Yoshimoto to Shimizu, in order to further reduce the noise generated by the CPU (as suggested by Yoshimoto).

9. Claims 1-2, 8, 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 2001/0053703, cited by examiner) in view of Yoshimoto (US 2002/0104890, cited by examiner).

As to claim 1, Kobayashi discloses a cellular phone (see the cellular phone in figure 1) comprising a radio circuit block (see the numerals 70 and 50 in figure 2) including an antenna 50; an analog baseband block connected to said radio circuit block (in this case, the analog baseband block as claimed reads on the circuit block that produces audio signals at paragraph [0030]); a digital baseband block connected to said analog baseband block (in this case, the digital baseband block as claimed reads on the circuit block that processes the image data at paragraph [0027]); and a control block (see the control block 52 in figure 2) for controlling operation of said blocks (see paragraph [0025]), said control block including a central processing unit (CPU) 52 for

treating data input from said blocks and said keyboard 44 (see paragraph [0025]), said radio circuit block receiving a radio signal through said antenna during a receiving slot (see the transmitting and receiving device 70 in figure 2). Kobayashi thus discloses all the claimed limitations except that said control block stops operation of said CPU during said receiving slot. Yoshimoto discloses stopping operation of a CPU when a communication device is in a receiving mode in order to reduce noise generated from the CPU (see paragraphs [0007], [0055]-[0062]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Yoshimoto to Kobayashi, in order to reduce noise generated from the CPU during the receiving slot (as suggested by Yoshimoto).

As to claim 2, the combination of Kobayashi and Yoshimoto discloses the claimed limitations (see Yoshimoto, paragraphs [0055]-[0062]).

As to claim 8, since the combination of Kobayashi and Yoshimoto discloses that the transmitting circuit 102 (see Yoshimoto) does not transmit when it is in receiving mode (see Yoshimoto, paragraphs [0055]-[0062]), the above combination reads on the claimed limitations.

As to claims 11-13, they are rejected for the same reasons as set forth in claim 1 above.

As to claims 14-16, they are rejected for the same reasons as set forth in claim 1 above.

10. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Yoshimoto as applied to claim 1 above, and further in view of Miyake (6,222,985, cited by examiner).

As to claim 4, the combination of Kobayashi and Yoshimoto does disclose at least one of display block and camera block (see Kobayashi, camera block 18 and display block 14). The combination, however, fails to disclose that at least one of the display block and camera block stops data transfer through an associated bus during the receiving slot as claimed. Miyake discloses at least one of the display block and camera block stops data transfer through an associated bus during a receiving slot (see column 8 line 55 to column 9 line 18; column 12 lines 20-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Miyake to the combination of Kobayashi and Yoshimoto, in order to reduce noise generated from the display block and camera block during the receiving slot (as suggested by Miyake).

As to claim 5, the combination of Kobayashi and Yoshimoto and Miyake discloses the claimed limitations (see Miyake, column 12 lines 20-44).

As to claim 6, the combination of Kobayashi and Yoshimoto and Miyake discloses the claimed limitations (see Miyake, column 8 line 55 to column 9 line 18).

11. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 2001/0053703, cited by examiner) in view of Miyake.

As to claim 9, Kobayashi discloses a cellular phone (see the cellular phone in figure 1) comprising a radio circuit block (see the numerals 70 and 50 in figure 2)

including an antenna 50; an analog baseband block connected to said radio circuit block (in this case, the analog baseband block as claimed reads on the circuit block that produces audio signals at paragraph [0030]); a digital baseband block connected to said analog baseband block (in this case, the digital baseband block as claimed reads on the circuit block that processes the image data at paragraph [0027]); at least one of display block and camera block (see camera block 18 and display block 14), and a control block (see the control block 52 in figure 2) for controlling operation of said blocks (see paragraph [0025]), said control block including a central processing unit (CPU) 52 (see paragraph [0025]), said radio circuit block receiving a radio signal through said antenna during a receiving slot (see the transmitting and receiving device 70 in figure 2).

Kobayashi thus discloses all the claimed limitations except that at least one of the display block and camera block stops data transfer through an associated bus during the receiving slot as claimed. Miyake discloses at least one of the display block and camera block stops data transfer through an associated bus during a receiving slot (see column 8 line 55 to column 9 line 18; column 12 lines 20-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Miyake to Kobayashi, in order to reduce noise generated from the display block and camera block during the receiving slot (as suggested by Miyake).

As to claim 10, since the combination of Kobayashi and Miyake discloses that the display block and camera block are disabled when the device is in receiving mode (see column 8 line 55 to column 9 line 18; column 12 lines 20-44), the above combination reads on the claimed limitations.



***Allowable Subject Matter***

12. Claims 3 and 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

As to claim 3, the applied references fail to disclose or render obvious that the control block delivers a plurality of interrupt signals based on priority orders of said interrupt signals after said receiving slot is finished, as specified in the claim.

As to claim 7, the applied references fail to disclose or render obvious that the digital baseband block generates a receiving frame signal having an inactive level during said receiving slot, as specified in the claim.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Russo (5,765,113); Watanabe (US 2001/0044286); Katagiri (US 2003/0071901); Hamano (5,604,928) disclose reducing noise during receiving mode.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T. Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nguyen Vo

*Nguyen Vo*  
6-30-2006

**NGUYENT.VO  
PRIMARY EXAMINER**